

ABSTRACT

5 This invention provides a directional ion etching process for making nano-scaled angled features such as may be used, for example, in liquid crystal displays and or nanoimprinting templates. In a particular embodiment a semiconductor wafer substrate is prepared with at least one layer of material. A photoresist is applied, masked, exposed and developed. Anisotropic ion etching at a high angle relative to the wafer is performed to remove portions of the non protected material layer. The remaining photoresist caps shadow at least a portion of the material layer, and as the ion etching is performed at an angle, the protected portions of the material layer also appear at an angle.